

Ameritech Illinois

Capital Structure

**Staff Proposal
December 31, 1999**

<u>Component</u>	<u>Balance</u>	<u>Percent of Total Capital</u>
Short term Debt	\$671,284,205	22.06%
<u>Long-term Debt</u>	<u>\$547,746,000</u>	<u>18.00%</u>
Total Debt	\$1,219,030,205	40.06%
<u>Common Equity</u>	<u>\$1,824,500,000</u>	<u>59.94%</u>
Total Capitalization	\$3,043,530,205	100.00%

Ameritech Illinois

Average Balance of Short-Term Debt

<u>Month</u>	<u>End of Month Balance of Short-Term Debt</u>	<u>Monthly Average</u>
June-99	\$398,000	
July-99	\$793,342,000	\$396,870,000
August-99	\$766,412,000	\$779,877,000
September-99	\$1,070,252,000	\$918,332,000
October-99	\$862,424,000	\$966,338,000
November-99	\$772,636,000	\$817,530,000
December-99	\$735,506,000	\$754,071,000
January-00	\$522,255,106	\$628,880,553
February-00	\$496,998,573	\$509,626,840
March-00	\$448,983,697	\$472,991,135
April-00	\$666,303,530	\$557,643,614
May-00	\$600,187,845	\$633,245,688
June-00	\$639,821,414	\$620,004,630
Average		<u>\$671,284,205</u>

Sources: Company Responses to Staff Data Requests SDR-071 and JF-4.01.

Ameritech Illinois

Embedded Cost of Long-Term Debt As of December 31, 1999 (\$000)

[illegible]

(Consol.)

Staff Exhibit 11.0
Schedule 11.04**Ameritech Illinois****The Discounted Cash Flow Model**

Discounted cash flow (DCF) theory posits the value of an asset equals the sum of the future cash flows it generates, discounted by the investor-required rate of return. Specifically, the market value of common stock equals the present value of the expected stream of future dividends.

In its general form, the DCF model for a stock paying dividends quarterly can be mathematically stated as follows:

$$P = \frac{D_{1,1}}{(1+k)^x} + \frac{D_{1,2}}{(1+k)^{x+0.25}} + \frac{D_{1,3}}{(1+k)^{x+0.50}} + \frac{D_{1,4}}{(1+k)^{x+0.75}} + \frac{D_{2,1}}{(1+k)^{x+1.00}} + \frac{D_{2,2}}{(1+k)^{x+1.25}} + \frac{D_{2,3}}{(1+k)^{x+1.50}} + \frac{D_{2,4}}{(1+k)^{x+1.75}} + \dots + \frac{D_{t,q}}{(1+k)^{x+m}} \quad (1)$$

where P = the current market value;

$D_{t,q}$ = the expected dividend at the end of quarter q in year t , where $q = 1$ to 4 and $t = 1$ to ∞ ;

k = the cost of common equity;

x = the elapsed time between the stock observation and first dividend payment dates, in years; and

$m = t - 1 + 0.25 (q - 1)$.

If dividends grow annually at a constant rate then,

$$D_{t+1,q} = D_{t,q}(1+g) \quad (2)$$

where: g = the expected growth rate in dividends.

(Consol.)

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Schedule 11.04

Substituting Equation (2) into Equation (1) produces:

$$\begin{aligned}
 P &= \frac{D_{0,1}(1+g)}{(1+k)^x} + \frac{D_{0,2}(1+g)}{(1+k)^{x+0.25}} + \frac{D_{0,3}(1+g)}{(1+k)^{x+0.50}} + \frac{D_{0,4}(1+g)}{(1+k)^{x+0.75}} + \frac{D_{0,1}(1+g)^2}{(1+k)^{x+1.00}} \\
 &+ \frac{D_{0,2}(1+g)^2}{(1+k)^{x+1.25}} + \frac{D_{0,2}(1+g)^2}{(1+k)^{x+1.50}} + \frac{D_{0,4}(1+g)^2}{(1+k)^{x+1.75}} + \dots + \frac{D_{0,4}(1+g)^t}{(1+k)^{x+t+0.25}} + \dots
 \end{aligned} \quad (3)$$

Equation (3) has an infinite number of terms ($t = 1$ to ∞). To obtain a finite number of terms, first multiply each side of the equation by the quantity $(1+k)/(1+g)$:

$$\begin{aligned}
 \frac{P(1+k)}{(1+g)} &= \frac{D_{0,1}(1+g)(1+k)}{(1+g)(1+k)^x} + \frac{D_{0,2}(1+g)(1+k)}{(1+g)(1+k)^{x+0.25}} + \frac{D_{0,3}(1+g)(1+k)}{(1+g)(1+k)^{x+0.50}} + \frac{D_{0,4}(1+g)(1+k)}{(1+g)(1+k)^{x+0.75}} + \frac{D_{0,1}(1+g)^2(1+k)}{(1+g)(1+k)^{x+1.00}} \\
 &+ \frac{D_{0,2}(1+g)^2(1+k)}{(1+g)(1+k)^{x+1.25}} + \frac{D_{0,2}(1+g)^2(1+k)}{(1+g)(1+k)^{x+1.50}} + \frac{D_{0,4}(1+g)^2(1+k)}{(1+g)(1+k)^{x+1.75}} + \dots + \frac{D_{0,4}(1+g)^t(1+k)}{(1+g)(1+k)^{x+t+0.25}} + \dots
 \end{aligned} \quad (4)$$

Eliminating redundant terms produces:

$$\begin{aligned}
 \frac{P(1+k)}{(1+g)} &= D_{0,1}(1+k)^{1+x} + D_{0,2}(1+k)^{1+(x+0.25)} + D_{0,3}(1+k)^{1+(x+0.50)} + D_{0,4}(1+k)^{1+(x+0.75)} \\
 &+ \frac{D_{0,1}(1+g)}{(1+k)^x} + \frac{D_{0,2}(1+g)}{(1+k)^{x+0.25}} + \frac{D_{0,3}(1+g)}{(1+k)^{x+0.50}} + \frac{D_{0,4}(1+g)}{(1+k)^{x+0.75}} + \dots + \frac{D_{0,4}(1+g)^{t+1}}{(1+k)^{x+t+1.25}} + \dots
 \end{aligned} \quad (5)$$

Next, subtract Equation (3) from Equation (5):

$$\begin{aligned}
 \frac{P(1+k)}{(1+g)} &= P + D_{0,1}(1+k)^{1+x} + D_{0,2}(1+k)^{1+(x+0.25)} + D_{0,3}(1+k)^{1+(x+0.50)} + D_{0,4}(1+k)^{1+(x+0.75)} \\
 &+ \frac{D_{0,1}(1+g)^t}{(1+k)^{x+t+1.00}} + \frac{D_{0,2}(1+g)^t}{(1+k)^{x+t+0.75}} + \frac{D_{0,3}(1+g)^t}{(1+k)^{x+t+0.50}} + \frac{D_{0,4}(1+g)^t}{(1+k)^{x+t+0.25}}.
 \end{aligned} \quad (6)$$

(Consol.)

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For $k > g$, as $t \rightarrow \infty$, $\frac{D_{0,1}(1+g)^t}{(1+k)^{x+0.25t}}$, $\frac{D_{0,2}(1+g)^t}{(1+k)^{x+0.75t}}$, $\frac{D_{0,3}(1+g)^t}{(1+k)^{x+0.50t}}$, and $\frac{D_{0,4}(1+g)^t}{(1+k)^{x+0.25t}} \rightarrow 0$.

Therefore,

$$\begin{aligned} \frac{P(1+k)}{(1+g)} &= P + D_{0,1}(1+k)^{1+x} + D_{0,2}(1+k)^{1+(x+0.25)} + D_{0,3}(1+k)^{1+(x+0.50)} + D_{0,4}(1+k)^{1+(x+0.75)} \\ &= \sum_{q=1}^4 D_{0,q}(1+k)^{1+[x+0.25(q-1)]}. \end{aligned} \quad (7)$$

The expression $(1+k)^{1-[x+0.25(q-1)]}$ is a future value interest factor. It measures the rate of return a dividend received in quarter q will earn if reinvested for $1-[x+0.25(q-1)]$ periods at the periodic opportunity cost k . A future value interest factor converts nominal to time values, thereby permitting the summation of cash flows paid at different times.

Multiplying each side by the expression $(1+g)$ produces:

$$P(1+k) = P(1+g) + \sum_{q=1}^4 D_{0,q}(1+k)^{1+[x+0.25(q-1)]}. \quad (8)$$

Finally, solving for k results in:

$$k = \frac{\sum_{q=1}^4 D_{0,q}(1+g)(1+k)^{1+[x+0.25(q-1)]}}{P} + g. \quad (9)$$

(Consol.)

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Schedule 11.04

To measure the cost of common equity k when growth g does not become constant until period T , first, restate Equation (1) as follows:

$$P = \frac{D_{1,1}}{(1+k)^1} + \frac{D_{1,2}}{(1+k)^{1+0.25}} + \frac{D_{1,3}}{(1+k)^{1+0.75}} + \dots + \frac{D_{T,4}}{(1+k)^{1+0.25(T-1)}} + \frac{P_{T,4}}{(1+k)^{1+0.25(T-1)}} \quad (10)$$

where: $P_{T,4}$ ¹ = the market value at the conclusion of the short-term growth stage;
 T = the total length of the short-term growth stage.

Next, multiply each side of the equation by the factor $(1+k)^{1+0.25(T-1)}$:

$$P(1+k)^{1+0.25(T-1)} = D_{1,1}(1+k)^{0.25(T-1)} + D_{1,2}(1+k)^{0.50(T-1)} + D_{1,3}(1+k)^{0.75(T-1)} + \dots + D_{T,4} + P_{T,4} \quad (11)$$

Finally, solve for k :

$$(1+k)^{1+0.25(T-1)} = \frac{D_{1,1}(1+k)^{0.25(T-1)} + D_{1,2}(1+k)^{0.50(T-1)} + D_{1,3}(1+k)^{0.75(T-1)} + \dots + D_{T,4} + P_{T,4}}{P} \quad (12)$$

$$k = \left[\frac{D_{1,1}(1+k)^{0.25(T-1)} + D_{1,2}(1+k)^{0.50(T-1)} + D_{1,3}(1+k)^{0.75(T-1)} + \dots + D_{T,4} + P_{T,4}}{P} \right]^{\frac{1}{1+0.25(T-1)}} - 1. \quad (13)$$

¹ $P_{T,4}$ is found by solving Equation (9) for the stock price:

$$P_{T,4} = \frac{\sum_{q=1}^4 D_{T,q}(1+g_l)(1+k)^{1+[x+0.25(q-1)]}}{k+g_l}$$

where: $D_{T,q}$ = the dividend paid in quarter q during the last year of the short-term growth stage; and
 g_l = the long-term growth rate.

(Consol.)

Staff Exhibit 11.0
Schedule 11.04

(Consol.)

Staff Exhibit 11.0
Schedule 11.05**Ameritech Illinois****Growth Rate Estimates and Ranges**

<u>Company</u>	<u>Zacks Earnings</u>	<u>IBES Earnings</u>	<u>Average Growth Rate</u>
Bell South Corporation	11.10%	10.94%	11.02%
CenturyTel Inc.	14.39%	15.10%	14.75%
SBC Communications	13.83%	13.00%	13.42%
Verizon Communications	11.87%	11.60%	11.74%
Hickory Tech Corporation	na	15.00%	15.00%

(Consol.)

Staff Exhibit 11.0
Schedule 11.06**Ameritech Illinois****Quarterly Dividends and Stock Prices as of September 6, 2000**

Company	Current Dividend				Next Dividend Payment Date	Stock Price
	<u>D_{0,1}</u>	<u>D_{0,2}</u>	<u>D_{0,3}</u>	<u>D_{0,4}</u>		
Bell South Corporation	\$ 0.190	\$ 0.190	\$ 0.190	\$ 0.190	11/1/2000	\$ 37.9400
CenturyTel Inc.	0.048	0.048	0.048	0.048	12/15/2000	28.0600
SBC Communications	0.244	0.244	0.254	0.254	11/1/2000	42.9400
Verizon Communications	0.385	0.385	0.385	0.385	11/1/2000	42.8800
Hickory Tech Corporation	0.110	0.110	0.110	0.110	12/5/2000	19.9400

(Consol.)

Staff Exhibit 11.0
Schedule 11.07**Ameritech Illinois****Expected Quarterly Dividends**

<u>Company</u>	<u>D_{1,1}</u>	<u>D_{1,2}</u>	<u>D_{1,3}</u>	<u>D_{1,4}</u>
Bell South Corporation	\$ 0.211	\$ 0.211	\$ 0.211	\$ 0.211
CenturyTel Inc.	0.055	0.055	0.055	0.055
SBC Communications	0.254	0.254	0.288	0.288
Verizon Communications	0.430	0.430	0.430	0.430
Hickory Tech Corporation	0.127	0.127	0.127	0.127

(Consol.)

Staff Exhibit 11.0
Schedule 11.08**Ameritech Illinois****DCF Cost of Common Equity Estimates
Constant Growth Scenario**

<u>Company</u>	
Bell South Corporation	13.38%
CenturyTel Inc.	15.57%
SBC Communications	16.12%
Verizon Communications	16.04%
Hickory Tech Corporation	<u>17.70%</u>
Average	15.76%

(Consol.)

Staff Exhibit 11.0
Schedule 11.09**Ameritech Illinois****DCF Cost of Common Equity Estimates
Non-Constant Growth Scenario**

<u>Company</u>	
Bell South Corporation	7.84%
CenturyTel Inc.	6.13%
SBC Communications	8.61%
Verizon Communications	10.25%
Hickory Tech Corporation	<u>8.67%</u>
Average	8.30%

(Consol.)

Staff Exhibit 11.0
Schedule 11.10

Ameritech Illinois

Risk Premium Analysis

Interest Rates as of September 6, 2000

U.S. Treasury Bills ¹		U.S. Treasury Bonds ²	
Discount Rate	Effective Yield	Bond Equivalent Yield	Effective Yield
6.03%	6.35%	5.71%	5.79%

¹ U.S. Treasury bill yields are quoted on a 360-day discount basis. The effective yield is determined as follows:

$$Effective\ yield = \frac{1 + \frac{discount\ rate \times \frac{days\ to\ maturity}{360}}{1 - \frac{discount\ rate \times \frac{days\ to\ maturity}{360}}}}{1} \times \frac{365}{days\ to\ maturity} - 1$$

Error! Main Document Only. where *days to maturity* equals ninety-one days.

²The bond equivalent yield on U.S. Treasury bonds represents a nominal rather than an effective yield. The effective yield is calculated as follows:

$$Effective\ yield = [1 + (bond\ equivalent\ yield \div 2)]^2 - 1.$$

(Consol.)

Staff Exhibit 11.0
Schedule 11.10**Risk Premium Cost of Equity Estimates**

<u>Risk-Free Rate Proxy</u>	<u>Risk- Free Rate</u>	<u>Beta</u>	<u>Risk Premium</u>	<u>Cost of Common Equity</u>
U.S. Treasury Bills	6.35%	+ 0.85	? (16.18% ? 6.35%) =	14.71%
U.S. Treasury Bonds	5.79%	+ 0.85	? (16.18% ? 5.79%) =	14.62%

(Consol.)

Staff Exhibit 11.0
Schedule 11.11**Ameritech Illinois****Overall Cost of Capital****December 31, 1999**

<u>Component</u>	<u>Percent of Total Capital</u>	<u>Cost</u>	<u>Weighted Cost</u>
Short term Debt	22.06%	6.61%	1.46%
<u>Long-term Debt</u>	<u>18.00%</u>	6.73%	<u>1.21%</u>
Total Debt	40.06%		2.67%
Common Equity	<u>59.94%</u>	11.80 - 14.40%	<u>7.07 - 8.63%</u>
	100.00%		

Weighted Average Cost of Capital**9.74 - 11.30%****Overall Cost of Capital Midpoint Estimate:****10.52%**

(Based on cost of equity midpoint estimate of 13.10%)